#### Annual Public School Inspections





### Qualified Fire Official



#### Certificates of Completion

Tier 1 students will get their certificates of completion today and will be added to our QFO list ASAP.

Tier 2 students will get their certificates and be added to our QFO list when they submit their "shadowing" confirmation letter to Debbie at our Springfield office.

#### Certificates of Completion

Tier 2 students should check our QFO list that is posted on our website and anybody with an (\*) next to their name is able to act as a "mentor" for an inspector that is shadowing to become a QFO.

#### History

It was the tragic fire at the Our Lady of the Angels school in 1958 that led to the establishment of the Code drafting committee for the first Health/Life Safety Code.



#### History

A 2003 amendment to an Illinois State statute authorizes the Office of the State Fire Marshal (OSFM) or a "qualified fire official to whom OSFM has delegated his or her authority" to conduct safety checks.

105 ILCS 5/2-3.12 41 IL Admin Code Part 111

#### History

After the rule was passed, ISBE and OSFM collaborated to review the existing inspection Checklist and Glossary and to provide training for ISBE administrators, OSFM inspectors and fire service inspectors.

#### Goals and Objectives

The purpose of this effort is a collaboration between ISBE and the Illinois Fire Service. It is meant to be beneficial and cooperative. The fire service can educate the ISBE staff and bring in their experience and the ISBE staff provides enlightenment from their unique perspective of school age children.

If the local fire department that has fire jurisdiction over the school(s) does not have the staffing or expertise to perform these inspections, OSFM inspectors will perform this inspection.

This is a mandatory inspection so if the local fire department decides they cannot perform these inspections anymore, <u>please</u>, <u>please</u>, <u>please</u> let the <u>OSFM know</u>. The schools will be transferred to OSFM inspection scheduling.

Only OSFM provides the training that "qualifies" fire department or fire protection district personnel to perform these inspections.

OSFM also provides this same training to their own inspectors.

Inspections do not have to be performed with ROE staff, but the intent of this program is to be collaborative. So whenever possible the best approach is to work with the local ROE.

ROE = Regional Office of Education

According to Illinois Administrative Code this is only an "advisory" inspection.

The rules do not require the fire service inspector (whether local or OSFM) to conduct a re-inspection.

If the local inspector is having problems getting the school or ROE to bring the violations into compliance (over the course of a couple of years), the Part 111 rules require OSFM to act as the liaison between ISBE/ROE and the fire service inspector.

Conditions that present an imminent danger must be corrected immediately.

41 IL Admin Code Part 111.90(c) 425 ILCS 25/9

Inspection reports must be returned to the <u>ROE</u> within 15 calendar days of the inspection <u>and to OSFM using</u> the procedure on the following slides.

Inspection reports <u>must NOT</u> be left at the school <u>OR</u> with the school district.

The Cook County exception is explained on a later slide.

[105 ILCS 5/3-14.21(c)] [Title 41 III. Adm. Code 111.90(b)]

If you are walking with ROE staff during this inspection, you must write up your own independent report! You cannot co-sign the ROE's written report. There must be a separate report from you, the inspector, sent to the ROE and to OSFM.

For public schools in Cook County only, within 15 calendar days make sure to:

- > Leave a copy of your report at the school
- ➤ Submit a copy of your report to the assigned Cook County Intermediate Service Center
- Submit a copy to OSFM

YOU MUST USE AN UPDATED APPROVED INSPECTION FORM THAT IS DISCUSSED IN THIS CLASS WHEN YOU PERFORM THESE INSPECTIONS.

You are not permitted to use your own fire department inspection forms!

The FIRST person to create an account linked to your fire department will be the Portal Administrator.

That person controls the privileges that the rest of the people have. As people create portal accounts linked to your fire department, they will not be able to do or see anything until the Administrator grants them privileges.

The Administrator can also grant administrative rights to other users.

If your administrator is to leave the department they will need to grant administrative rights to another user.

Additional information on Administrator rights can be found in the Help Video "How to Use Admin Tools."

There have been problems registering your fire department. This is often because of the server on the Mobile Eyes side of the system. If it takes you more than five minutes to register please contact the OSFM Administrative Assistant for help. (Contact information is provided in a later slide).

Open a browser (Internet Explorer, Chrome, Safari, etc.) and go to <a href="https://www.mobile-eyes.com">www.mobile-eyes.com</a>.

Click "Login"

**Note:** Steps 6 thru 8 are only required for the Portal Administrator.



Select:

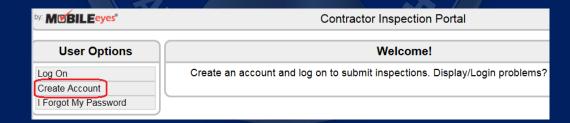
Contractor, architect, or business owner

**AND** 

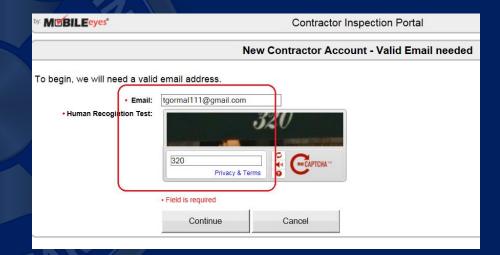
Submit a system inspection report

Click "Next"

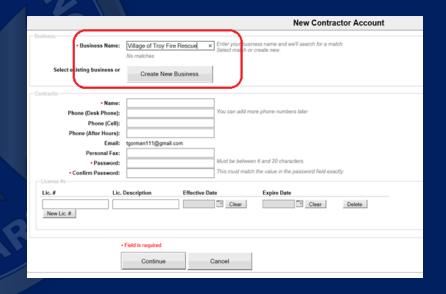
Click "Create Account"



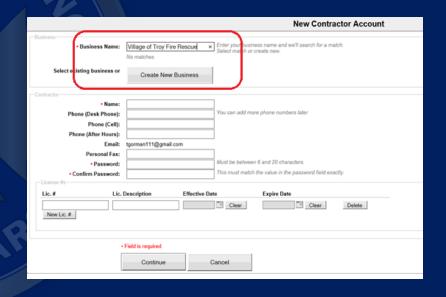
Enter your email address and the human recognition test. Then click "Continue."



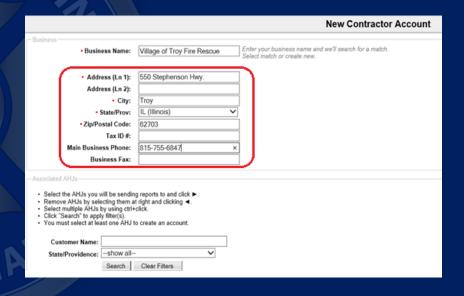
Enter your department name in the "Business Name" box. As you type, it will look for matches to existing departments. This is in case a department has multiple people setting up accounts.



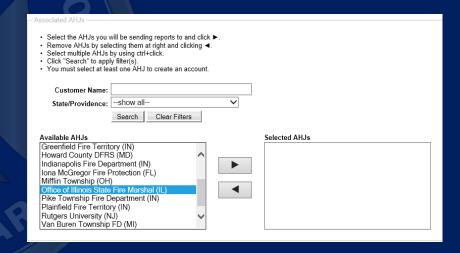
If you see your department pop up in the suggestions, click on it. If not, click "Create New Business."



Enter the address and phone information for your department.

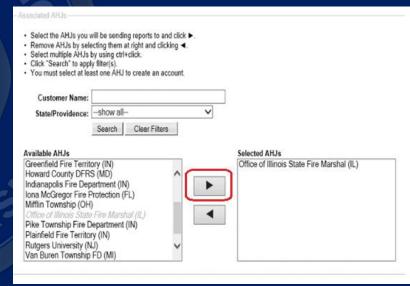


Find "Office of the Illinois State Fire Marshal" in the "Available AHJs" list and click to select.

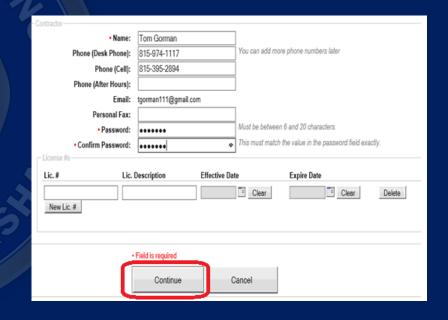


Click the arrow to move it to the "Selected AHJs" list.

**Note:** The terminology will be a little off-"Selected AHJs" for example. That is because the portal is primarily used by sprinkler and alarm contractors to submit system inspection reports to their local AHJ. OSFM is using it to have local AHJs submit public school inspection reports



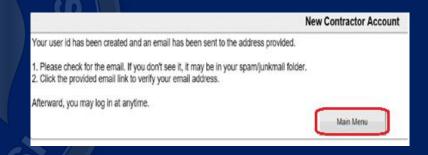
Enter your personal information. Ignore the License section. This pertains to contractors using the portal, not to you.



Click "Continue"

At this point an email is sent to the email address you provided. Find that email and follow the instructions in it to verify your email address.

Once you have verified your email address, click "Main Menu."

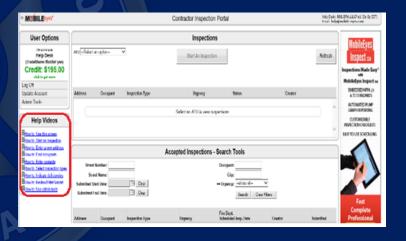




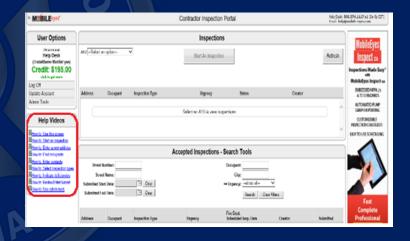
Enter your email and the password you created. Check the "Remember Me" box. Then click "Continue."



For further help and instructions on how to use the portal, please watch the "Help Videos" available on the main menu.



If you have questions or run into a problem, please call or email the MobileEyes Help Desk. The Help Desk information is in the upper right corner.



Even though this screen shot shows credits, the OSFM is paying for the portal. There is no cost to you.



Log On

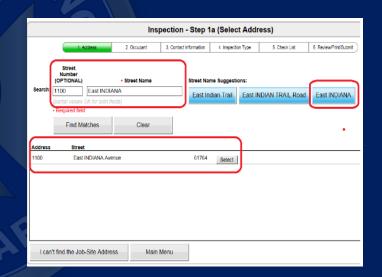
Select under AHJ "Office of the State Fire Marshal"

Click "Start An Inspection"

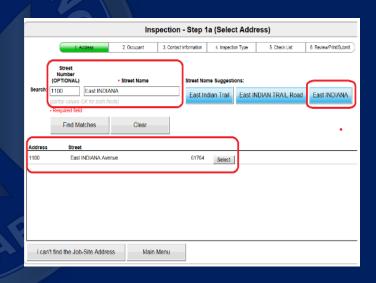


#### Step 1a (Selecting Address)

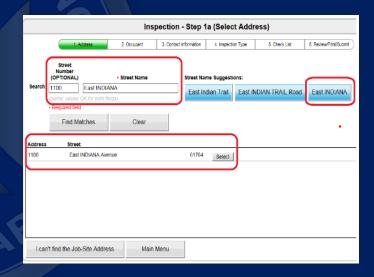
Enter the address of the school in the "Street Number" or 'Street Name" box or a combination of both. As you type, it will look for matches to existing addresses. If you see your address pop up in the choices, click on it.



You may also click "Find Matches" and filter through for the address you are looking for.

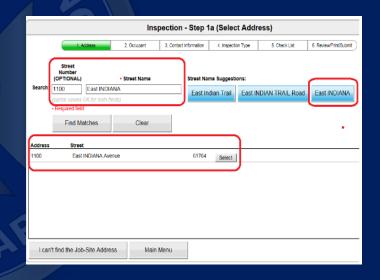


When you find the address you would like to use, click "Select" to the right of the address field.



**Note:** The majority of schools have addresses in the database.

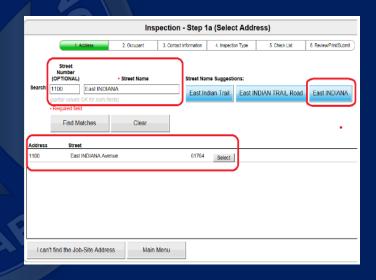
If you come across an address with an incorrect ZIP code please make a note of this in the comment sections in Step 6, rather than create a new address.



May 2022

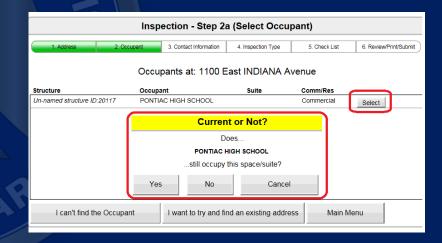
If the address is not there, click "I can't find the Job Site Address" and enter address accordingly.

For additional instruction please view the Help Videos on the main screen.



Step 2a (Select Occupant)

Click "Select" to the right of the occupant you are inspecting (there may be multiple occupants in your structure). You will be asked "Does (occupant) still occupy this space?" Click "Yes"



#### Step 3 (Contact Information)

Click "Select" beside your current contact or click "I can't find the Contact" and enter the contact information on the next screen.

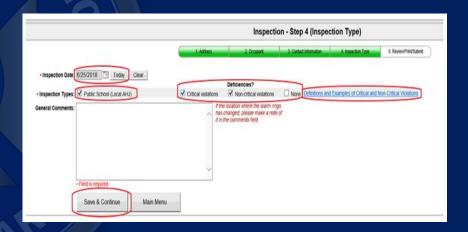


#### Step 4/5 (Inspection Type)

Click the calendar to enter Inspection date or Click *Today* if you upload inspection same day.

Click "

"
beside Public School.



#### **DEFICIENCIES**

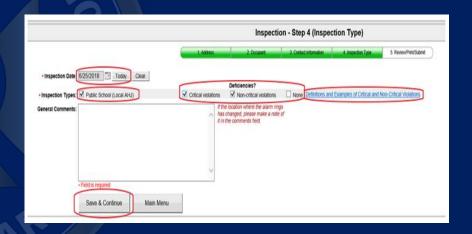
the State Fire Marshal.

Select appropriate box(s) for Deficiencies

Critical, Non-Critical or None

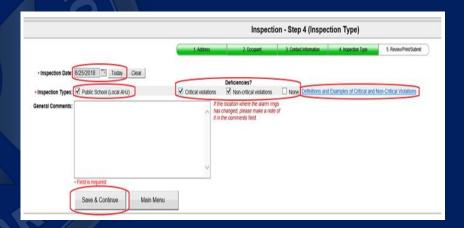
Click Critical Violations or Non-Critical Violations
based on the criteria defined by the Office of

**NOTE:** Please review the definitions for Critical and Non-critical on the link to right of "None"



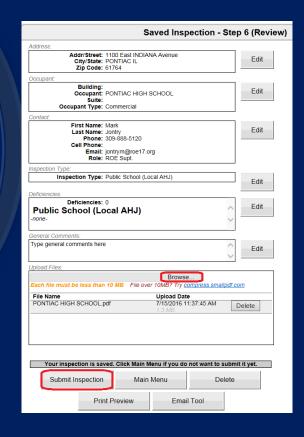
Comments may be added in the General Comments box.

Click Save & Continue



Step 6 (Review)

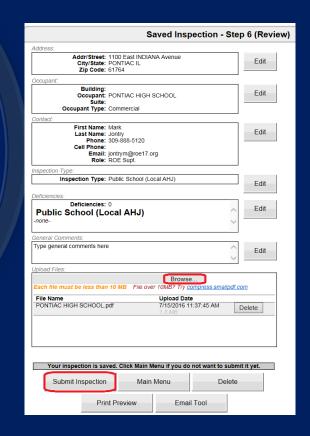
Check the address, occupant and contact information fields are correct.



Click "Browse" to upload your inspection.

Each file must be less than 10 MB.

Click "compress.smallpdf.com" to reduce the size of larger documents

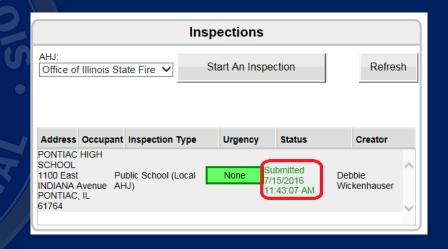


As a reminder only the approved ROE or Fire Service Checklist discussed in this class is permitted to be used for public school inspections. By law, you cannot use your own FD inspection form.

A confirmation email will be sent to you once your inspection has been accepted and approved.

**NOTE:** You can also click "Print Preview" if you would like to print a copy of what you are about to submit or click "Email Tool" if you would like to email it to yourself or someone else.

At this point you are taken back to the Main Menu where you will find a complete listing of the reports submitted or that you are in the process of submitting.



Mobile Eyes has some search limitations. For example "1st Street" vs. "First Street" or "W" vs. "West." We have found that the easiest way to find an address is to type in **only** the street number and click on the "Find Matches" button. This will populate a list of addresses in our system that have a variation of the street number you have entered. Then you can select the address you are looking for.

### **Inspection Portal Procedures**

Kensie.Proctor@Illinois.gov

217-785-4714

OR

MobileEyes Help Desk at 866-442-9002

(8:00 a.m.-8:00 p.m. EST)

Email: help@mobile-eyes.com

### Policy

Enforcement will be as prescribed in ISBE rules and the ROE with jurisdiction will take charge of problems of continued non-compliance.

### Policy

The ISBE Health/Life Safety Code does not have jurisdiction over Chicago public schools and Chicago Public Schools are not incorporated into this health/life safety collaboration.

23 IL Admin Code Part 180.10(b)

#### Timeline

July/August prior to school year: Set up inspection appointments for upcoming school year

End of School Year: Inspections should be completed

June 30<sup>th</sup>: Deadline for submittal of reports, or ROE cannot obtain funding to make repairs as deadline for schools to submit this information to districts is July 30<sup>th</sup>.

[105 ILCS 5/3-14.21(a)]

### Timeline



### Scheduling

In most cases, do not expect to perform inspections during months or days when schools are closed. It is during these times that the schools make repairs, remodel and clean the schools. Schools are predictably "not in compliance" during these times.

But one of the reasons for performing the inspection during occupied hours is so you will see the normal operations when students are in the building and see all the "good" and "bad" habits of the building.

### Scheduling

#### Allow approximately:

- > 2 hours for a grade school
- > 2-3 hours for a middle school
- > 4 hours to 1 day for a high school

### Scheduling

To find contact information for your local ROE go to

www.iarss.org

and click on Directory of Regional Superintendents

There are 6 <u>IARSS</u> areas in Illinois and each area will have multiple ROE's.

The person in charge of an ROE is the Regional Superintendent. It will be that person, or his/her designee that will be working with the fire service inspector.

Regional Office of Education or ROE = this is the administrative office for a county or multiple counties. There are multiple school districts in one ROE.

Each school district has a superintendent

ROE Superintendent + District Superintendent

Authority Having Jurisdiction or AHJ = The AHJ is the ROE or ISBE. It is not the local fire department or OSFM.

Per administrative rule the OSFM and local fire departments are allowed to inspect public schools but are not the AHJ.

Additionally, the ROE's handle all construction and remodeling from that office for all their school districts.

New construction is not part of this class and is covered under a separate set of ISBE rules.

Health/Life Safety Code = "The Health/Life Safety Code is a document prepared by ISBE with the advice of IDPH, the Capital Development Board and OSFM to 'conserve the health and safety and general welfare of the pupils,' school personnel and others who use public school facilities."

23 Ill. Admin. Code 180

Health/Life Safety Code = The ISBE "Health/Life Safety Code" which should not be confused with the NFPA 101, *Life Safety Code* that has been adopted by the OSFM for application in other occupancies.

ROE Health/Life Safety Checklist

Fire Service Checklist

Remember you are only permitted to use these approved forms. You cannot use your own fire department inspection form and forms must be returned to OSFM and ROE within 15 calendar days.

#### Definitions

Health/Life Safety Glossary. This is a guidance document that identifies and describes the various items that should be checked during the inspections as well as the applicable code sections.

This document provides explanations for requirements and helps the inspector apply the checklist. The glossary works for both checklists.

#### Definitions

Health/Life Safety Handbook. This handbook includes copies of the Health/Life Safety Glossary and checklists but also contains much information that is used by the ROE that the fire service inspector does not need to worry about. These should be kept at each ROE and can be accessed from the ISBE website. (See next slide)

#### **Definitions**



See matrix in front of the Glossary

Part 185 – for schools approved for design before July 1, 1965

Part 175 – for schools approved for design after July 1, 1965 but before March 24, 1995.

Part 180 (BOCA 1993) – for schools approved for design on or after March 24, 1995 but before July 6, 1998

BOCA 1993 Fire Prevention and Property Maintenance Codes can be retroactive to all the older schools unless Parts 175 or 185 have something more stringent

Part 180 (BOCA 1996) – for schools approved for design on or after July 6, 1998 but before October 3, 2005

Part 180 (ICC 2003) – for schools approved for design on or after October 3, 2005 but before September 25, 2007

Part 180 (ICC 2006) – for schools approved for design on or after September 25, 2007 but before January 1, 2010

Part 180 (ICC 2009) – for schools approved for design on or after January 1, 2010 but before July 1, 2016

Part 180 (ICC 2015) — for schools approved for design on or after July 1, 2016

....when ISBE adopted the 1993 BOCA Codes their administrative language enforcing this adoption permitted the BOCA Fire Prevention and Property Maintenance Codes to apply to all buildings approved for design before July 6, 1998 unless Parts 185 or 175 (if applicable) has something more stringent.

If an issue arises, the ROE will make the final interpretation. Remember our inspection is only advisory.

But again, if you feel strongly that their interpretation is incorrect, you should call OSFM

Most "large ticket" items are caught (or should be) by the district architect during the 10-year survey process.

No matter what code the inspector uses, their experience in performing inspections and their general knowledge of codes will assist them in this school inspection process.

The inspector should be able to recognize a violation and the Glossary will point to the code section that is in violation

Only the codes adopted by ISBE are the codes that can be referenced. These rules apply to all buildings owned or leased by the public school district, whether student occupied or not.

Codes adopted by the local fire agency or OSFM are not applicable within public schools in Illinois (except for CPS, which must comply with Chicago codes).

Local fire departments and OSFM will NOT be expected to inspect or enforce:

- > The Illinois Accessibility Code
- ➤ The Illinois Plumbing Code
- >The requirements used by Illinois Department of Labor
- ➤ Bleachers (except for areas under bleachers)

The ROE Checklist and Glossary are broken down into "use" areas expected to be found in a public school. An elementary school is likely to not have all the areas found on the checklist, such as a woodworking shop or swimming pool.

Hazards or conditions common to each area are identified and some features are repeated as the inspector moves from room to room.

The Fire Service checklist is arranged according to inspection item category, which is a more familiar format for local fire inspectors. The numbering for the Fire Service checklist is consistent with the number in the Glossary.

The numbering for the ROE checklist and the Fire Service checklist is consistent with the numbering in the Glossary.

OSFM provides a fillable form on our website that can be used but please understand that newer browsers sometimes do not allow fillable forms to be opened online. If you run into this problem try opening it up in an older browser or you can "save as" the form and download to your desktop. It should open normally. But OSFM cannot promise it will work.

Remember: You must use the approved ROE or Fire Service checklists discussed in this class. You cannot use your FD's inspection forms to perform the inspections of public schools.

Remember: You must turn in the reports to OSFM and the ROE within 15 calendar days.

During this training it is assumed that you will have a basic knowledge of fire and life safety terms, but if you need an explanation please do not hesitate to ask.

#1. Safety Reference Plans – Should be available at each school. The Health/Life Safety Handbook provides all the information needed for these plans. The Safety Reference Plan identifies:

- Site plan
- Schematic floor plans
- Utilities
- Fire protection systems

#2. School Safety Drills -

During each academic year:

- 3 building evacuation drills (1 with fire official present)
- 1 bus evacuation drill
- 1 shelter-in-place (tornado drill)
- 1 law enforcement drill to address lock-downs, shootings, bomb threats

#2. School Safety Drills -

Inspector should ask for documentation, taking into consideration the time of year his/her inspection is taking place.



#2. School Safety Drills -

The local inspector should keep their own records, but it is ultimately the responsibility of the school district (and not the local) to submit their drill records to the ROE or ISC.



#3. Annual Review of Crisis Plan -

Local fire departments, police departments, EMS providers, etc. are all involved in this plan. Requires signature of all participating agencies that plan is approved for that school year. This covers both public and private schools.

#4. Hold-Open Devices –

For doors that are required to be fire-rated or prevent the spread of smoke, approved door closing devices must be installed. In most cases, it must be an approved hold-open device interfaced with a smoke detector <u>and only in the Part 175/185 schools</u>, interfaced with the fire alarm system. But always check actual requirements.

#5. Unobstructed Exits -

- Nothing blocking doors, aisles, corridors
- Required clear width maintained
- Not hidden by curtains, temporary partitions













#6. Emergency Lighting and Exit Signs -

Emergency lighting and exit signs are generally required in rooms or areas where 2 means of egress are required.





#6. Emergency Lighting and Exit Signs -



#7. Periodic Testing of Emergency Lighting Equipment –

Appendix F in the Glossary provides guidance for this process and can be copied and given to the school official.

#8. Proper Storage and Use of Flammable and Combustible Liquids and Other Chemicals –

Storage of these items are varied and found throughout a school building. Appendix B provides guidance for the school official as well as the inspector.

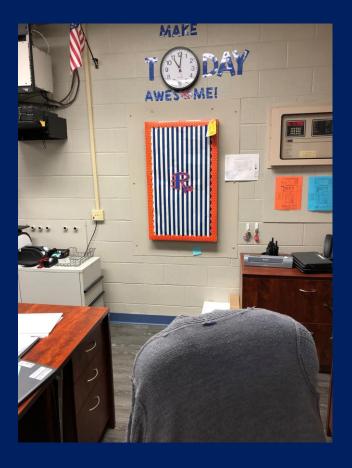




#9. Functional Fire Alarm System -

Depending upon the size of the school building, the majority of all buildings are required to have a fire alarm system.





#10. Fire Alarm Audibility –

The fire alarm has to be heard throughout the building. The inspector does not need to perform this test or carry a sound meter, but it is possible that occupants in noisy mechanical rooms, music practice rooms, or similar areas will not be able to hear the alarm should it activate.

#11. Manual Fire Alarm Station -

Make sure pull stations are clear, unobstructed, and not damaged.

#12. Fire Alarm Inspection, Testing, and Maintenance (ITM) –

Ask for the fire alarm ITM report

See Appendix C for requirements specific to age of building



#13. Functional Sprinkler System -

Inspectors will not be requiring the installation of sprinkler systems, but will perform a general visual inspection of existing systems and asking for required maintenance and testing.



#13. Functional Sprinkler System -

Sprinkler systems must be inspected and/or tested by a contractor that is licensed by OSFM. This includes fire pump tests.

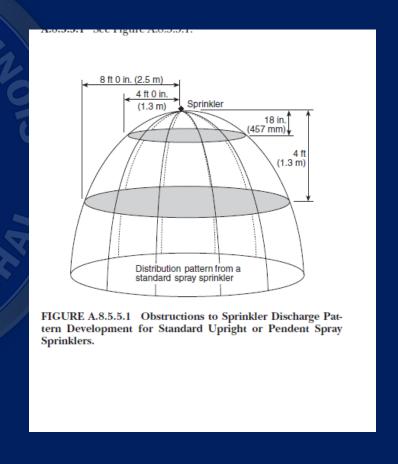
#14. Clearance Above Storage and In Unsprinklered Rooms or Areas -

Not normally a horizontal plane below sprinkler deflector as always believed. NFPA 13 provides diagrams that clarify this requirement.



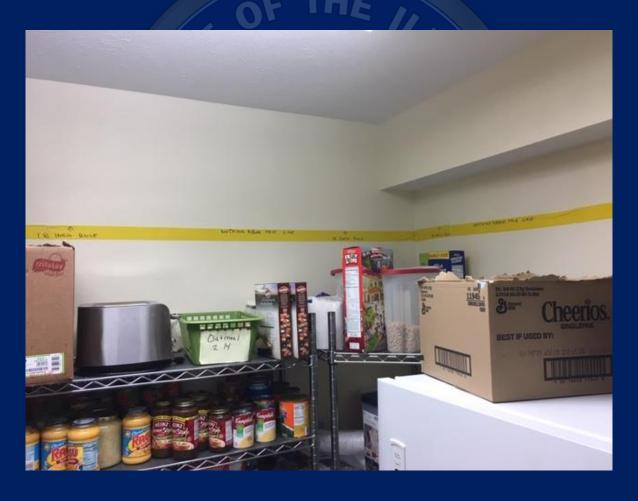
#14. Clearance from Storage and In Unsprinklered Rooms or Areas-

Sprinklers shall be located so as to minimize obstructions to discharge as defined in 8.5.5.2 and 8.5.5.3, or additional sprinklers shall be provided to ensure adequate coverage of the hazard. (See Figure A.8.5.5.1.)



#14. Clearance Above Storage and In Unsprinklered Rooms or Areas-

In areas without sprinklers, the codes adopted by ISBE still require that storage be maintained at least 2 ft. below ceilings.



#15. Functional Standpipe System –

The inspector will not be requiring these to be installed but should asking for required maintenance and inspection report.

If the standpipe is used as part of the supply for a sprinkler system then it must be inspected by a contractor licensed by OSFM.

#15. Functional Standpipe System -

Hoses should be appropriately tagged.

#16. Fire Extinguishers

Fire extinguishers are required to be installed in accordance with NFPA 10 (2007) pursuant to Title 41 Il Adm Code 251.

Also see Appendix D.







#16. Fire Extinguishers –

OSFM rules require that fire extinguishers be serviced and inspected by a State licensed contractor and the current inspection tag be attached to the fire extinguisher.



41 IL Admin Code Part 251

#17. Safety Glazing —

This is part of the inspection fire service inspectors are not responsible for. But relates to the Safety Glazing Materials Act that became effective on January 1, 1973.

#18. Emergency Shower and Eye Wash Stations –

This item falls under the jurisdiction of the Illinois Department of Labor and the fire department, fire protection district or OSFM inspector will not be required to review or enforce this.





#19. Wall-Mounted Alcohol Hand-Rub Dispensers -

New and existing <u>wall-mounted</u> installations must comply with this requirement. See Appendix H.

Bulk storage of this product falls under applicable requirements from flammable combustible liquid storage requirements.

#20. Decorative Vegetation –

The IFC prohibits natural cut trees in areas that are not protected with sprinklers. If sprinklers are installed, then certain minimum requirements apply for the display of natural cut trees.

See Appendix I



#21. Space Heaters -

Unvented, fuel-fired heating appliances are prohibited. Other permissible heating appliances must be listed.

#22. Furnishings and Decorations –

The Glossary goes into great detail on these requirements and a definition of "decorative material" has been provided.

#22. Furnishing and Decorations -

In general, there are no requirements prohibiting the use of personal furniture in classrooms.

In general, curtains, drapes and other decorations must comply with NFPA 701.

#22. Furnishing and Decorations -

But always double check actual code requirements!

#23. See Appendix L for <u>newly</u> installed interior finish requirements





#24. Multiple Plug Adaptors –

Multiple plug adaptors not complying with NFPA 70 not permitted.

#24. Extension Cords -

Extension cords and flexible cords cannot be a substitute for permanent wiring. Extension cords cannot extend through walls, under rugs or affix to walls, ceilings or under doors and the must be protected from environmental or physical damage.

#25. Electrical Systems –

All identified electrical hazards shall be abated.



#26. Carbon Monoxide Detection-

All schools must have carbon monoxide detection located within 20 feet of a carbon monoxide emitting device. Schools designed before January 1, 2016 may use carbon monoxide alarms powered by batteries.

(105 ILCS 5/10-20.57, 41 Ill. Adm. Code 112.230)

#26. Carbon Monoxide Detection-

For public schools designed on or after January 1, 2016, any carbon monoxide alarm installed must be monitored by any required fire alarm system and must be permanently powered by the building's electrical system.

(105 ILCS 5/10-20.57, 41 Ill. Adm. Code 112.230)

#26. Carbon Monoxide Detection-

A school is exempt from these requirements if it does not have or is not close to any sources of carbon monoxide.

Alarms or detectors must be in operating condition and be inspected annually.

#26. Carbon Monoxide Detection-

A school must require plans, protocols, and procedures in response to the activation of a carbon monoxide alarm or carbon monoxide detection system.

#### Administration and General Building Requirements-Security Locking

Additional locking on classroom doors is permitted as long as the locking device complies with <u>all</u> of the following requirements:

- 1. The door security locking means can be engaged without opening the door.
- 2. The unlocking and unlatching of the door security locking means from the occupied side of the door can be accomplished without the use of a key or tool.
- 3. The door security locking means complies with all applicable State and federal accessibility requirements.
- 4. Locks, if remotely engaged, can be unlocked from the occupied side.
- 5. The door security locking means is capable of being disengaged from the outside by school district employees, and school district employees may use a key or other credentials to unlock the door from the outside.
- 6. The door security locking means does not modify the door-closing hardware, panic hardware, or fire exit hardware.
- 7. Any bolts, stops, brackets, or pins employed by the door security locking means do not affect the fire rating of a fire door assembly.
- 8. School district employees are trained in the engagement and release of the door security locking means, from within and outside the room, as part of the emergency response plan.

#### Administration and General Building Requirements-Security Locking

- 9. For doors installed before July 1, 2019 only, the unlocking and unlatching of a door security locking means requires no more than 2 releasing operations. For doors installed on or after July 1, 2019, the unlocking and unlatching of a door security locking means requires no more than one releasing operation. If doors installed before July 1, 2019 are replaced on or after July 1, 2019, the unlocking and unlatching of a door security locking means on the replacement door requires no more than one releasing operation.
- 10. The door security locking means is no more than 48 inches above the finished floor.
- 11. The door security locking means otherwise complies with the school building code prepared by the State Board of Education under Section 2-3.12.

Under these provisions, a school can fit an ADA compliant deadbolt and use two motions to first unlock and then unlatch an existing door. Any locking mechanisms installed in new construction or when replacing doors must comply with the single motion unlocking and unlatching.

Schools are permitted the option to use a device that does not comply with requirements found in #3 and #10 above <u>upon</u> <u>written agreement</u> of the local fire department, local law enforcement, and local school district. The remainder of the requirements must be complied with. This device placement is limited to doors in place prior to July 1, 2019.

#### Classrooms

See Appendix N for more information.



These inspections are not destructive inspections. You should not be damaging walls to determine actual wall design

The purpose of the inspection is to confirm that the integrity of the fire rated wall is being maintained

What is shown on the slides related to fire-rated separation is mainly to identify when Parts 175 and 185 have differing requirements from the model codes (BOCA and ICC). The inspector should always double check with the actual code requirements if there is a question. Using Appendix O, P, or Q in the back of the Glossary will also help.

#### Check for:

- Unprotected penetrations
- Proper doors
- Proper glazing
- Approved self-closing devices (if required)
- Approved positive latching (if required)
- Fire/smoke dampers

ISBE has agreed with the OSFM's interpretation of their codes that self-closing devices and latching is required on any door required to be a fire-rated door.

ISBE has agreed with the OSFM's interpretation of their codes that unprotected louvers, transoms etc. are not permitted

The biggest issue created by this will be classroom corridor doors, especially in older (Part 175/185) buildings.

ISBE has determined based on the literal interpretation of IFC 703.1.2 (and the OSFM agrees) that annual fire safety inspections do not include mandatory documentation of inspection and testing of dampers and fire doors.

# Special Note For Fire Rated Construction

Appendix O = Separation requirements 175

Appendix P = Separation requirements 185

Appendix Q = Separation requirements 180(BOCA 1993/1996 + ICC 2003/2006/2009/2015)

## Facilities and Buildings

If a building is owned or leased by a public school district <u>and</u> <u>used</u> for public school purposes, that building or portion owned or leased by the public school district must comply with the ISBE Health/Life Safety Code.

## Facilities and Buildings

But if the building is owned by a public school district and leased out for <u>other than</u> public school purposes, the building or portion thereof must comply with at minimum the code adopted by the local authority and if that authority is not a home rule municipality, then it must also comply with the codes adopted by OSFM, whichever is more stringent.

## Agricultural Labs

See individual sections for those special processes that might exist in an agricultural lab, i.e. green houses, automotive shops, industrial shops, or science labs.

These requirements apply to the larger rooms generally found in high schools or possibly middle schools that have large quantities of art supply storage, kilns, painting using flammable or combustible paints, thinners, etc.

#28. Maintenance of Fire-Rated Construction and Door Closers —

ISBE rules (175/185) require these rooms to be enclosed by <u>3/4-hour</u> fire rated construction:

- Doors, closers, positive latching
- Walls (wall rating is a 10-year survey item)
- Wall penetrations (firestopping maintained?)
- Glazing

#29. Fire Detectors –

Requirement unique to 175/185. Only required if room is not protected with sprinklers. Can be heat or smoke detectors.

## #30. Spray Finishing Operations using Flammable Finishes -

- Area or room must be protected with sprinklers
- Sprinklers in spray area/exhaust
- Cover sprinkler heads with thin plastic bags
- Mechanical exhaust directly to outside
- No welding or other spark producing operations



\*Note on bags covering sprinklers heads\*

Only cellophane bags having a thickness of ≤ 0.003" or a thin paper bag are permitted to be used. Polypropylene bags such as "Glad", "Baggies", or "Ziploc" bags are not permitted because they shrink prior to development of temperatures needed to ensure sprinkler activation and can interfere with proper operation. True cellophane bags and thin paper bags degrade rather than melt.

[NFPA 13-Section 6.2.6.4.2 (2013)]

#31. Limited Spraying Spaces –

Where aggregate surface area to be sprayed does not exceed 9 ft<sup>2</sup>:

- Sprinkler protection not required
- Mechanical ventilation still required

#32. Explosion Proof Fixtures –

Check the requirements found in the applicable edition of NFPA 70, National Electrical Code.

#33. Kiln Exhaust –

If a kiln exists it must have its own exhaust system that exhausts directly to outside.

#34. Kiln Fuel Switch –

Part 175/185 requires an emergency disconnect switch for fuel-fired (not electric) kilns and it is required at the primary entrance to the room, between 6-7 ft. above the floor. Must be painted red and labeled "Emergency Fuel Burner Switch"

#35. Safety Glasses —

This item falls under the jurisdiction of the Illinois Department of Labor and the fire department, fire protection district, or OSFM inspector will not be required to review or enforce this.



#36. Toxic Art Supplies –

This is item falls under the jurisdiction of ISBE and the Illinois Department of Labor and the fire department, fire protection district, or OSFM inspector will not be required to review or enforce this.



#37. Posted Occupancy Load —

Any assembly occupancy (occupancy load > 50 persons) must have an occupancy load sign posted in a visible location. The Health/Life Safety Handbook has a sample sign or you can use your own FD published sign if available.

#38. Number of Exits –

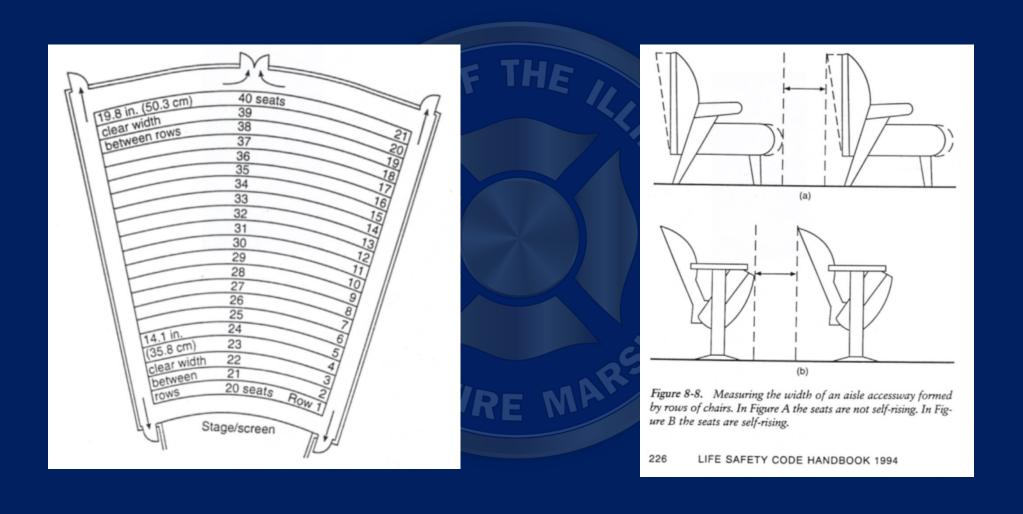
The means of egress capacity for the auditorium will more than likely be calculated at the time the auditorium was designed. So, it is assumed the number of existing exits is approved. This number cannot be reduced for any reason.

#38. Number of Exits -

If the inspector feels the existing number is not in compliance with the applicable ISBE adopted code or ISBE rule, then he/she should bring this issue to the school official or the ROE.

#39. Means of Egress Arrangement –

Required clear width of aisle, aisle accessways should be maintained.



#40. Illuminated Exit Signs —

Must be either internally illuminated or externally illuminated and installed at every required exit doorway.



#41. Emergency Lighting –

Is required to illuminate the means of egress in auditoriums.



#42. Maintenance of Fire-Rated Construction and Door Closers —

Part 175/185 requires assembly areas load > 600 persons is required to be enclosed with <u>1-hour</u> fire-rated construction

Part 175/185 only: Smoke or heat detectors are only required in assembly areas if the room or area has interior finish with flame spread > 75 and is not protected with sprinklers.

#51. Maintenance of Fire-Rated Construction and Door Closers –

175/185 requires automotive shops to be enclosed with <u>1-hour</u> fire-rated construction.

#52. Fire Detectors – 175/185 only and only if area is not sprinklered

#53. Spray Finishing Operations Using Flammable Finishes.

#54. Limited Spraying Spaces -

#55. Explosion Proof Fixtures – Follow NFPA 70





\*Note on bags covering sprinklers heads\*

Only cellophane bags having a thickness of  $\leq 0.003''$  or a thin paper bag are permitted to be used. Polypropylene bags such as "Glad", "Baggies", or "Ziploc" bags are not permitted because they shrink prior to development of temperatures needed to ensure sprinkler activation and can interfere with proper operation. True cellophane bags and thin paper bags degrade rather than melt.

[NFPA 13-Section 6.2.6.4.2 (2013)]

#56. Welding Booth Exhaust –

Must have an exhaust directly to the outside of the building. "Portable vents" do not comply. All they do is scrub the air and then exhaust back into the room.

#57. Safety Glasses –



#63. Installation, Inspection and Maintenance —

Applies to indoor and outdoor bleachers and grandstands. Use matrix in the front of the Glossary to determine which standard or code applies to bleachers and grandstands (depends on the age).

Except for what is found on following slides this is not enforced by fire officials.

#64. Combustible Storage and Waste Accumulation –

Under bleachers and grandstands is not permitted. Fire officials <u>will be</u> inspecting under bleachers and grandstands.

#65. Structures Underneath Grandstands such as Concession Stands, Snack Bars, Toilet Rooms, and Storage (IBC; NFPA 102)

**IBC only:** Where spaces under grandstands or bleachers are used for purposes other than ticket booths less than 100 ft<sup>2</sup> and toilet rooms, such spaces shall be separated by fire barriers with not less than 1-hour fire-rated construction.

#65. Structures Underneath Grandstands such as Concession Stands, Snack Bars, Toilet Rooms, and Storage (IBC; NFPA 102)

BOCA, 175, and 185 only: Accessory uses such as ticket booths, toilet facilities, or concession booths shall be permitted in such spaces where of noncombustible or fire-resistive construction. Concession booths of any construction are permitted if protected throughout with sprinklers or constructed using 1-hour fire-rated construction.

## **Boiler Rooms**

#69. Door Swing –

Requirement unique to 175 and 185 only. Interior doors to heater and boiler rooms shall open into the room.

## **Boiler Rooms**

#70. Maintenance of Fire-Rated Construction and Door Closers —

2-hour fire-rated construction = 1½-hour door

#71. Housekeeping –

The boiler room should be kept free of all materials and equipment not necessary to the operations of the heating system.

IFC Boiler Rooms Only: Combustible storage of any kind is not permitted in boiler rooms.

#72. Fire Detectors –

175/185 only and only if area is not sprinklered.

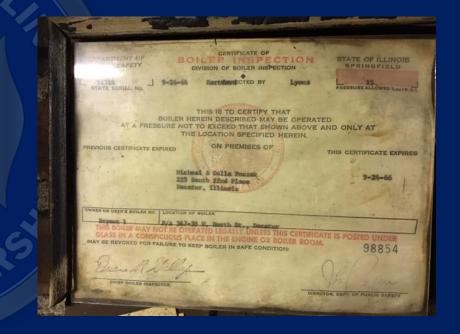
#73. Emergency Fuel Burner Switch -

175/185 require that the emergency switch be located adjacent to the primary entrance door, between 6-7 ft. above the floor.

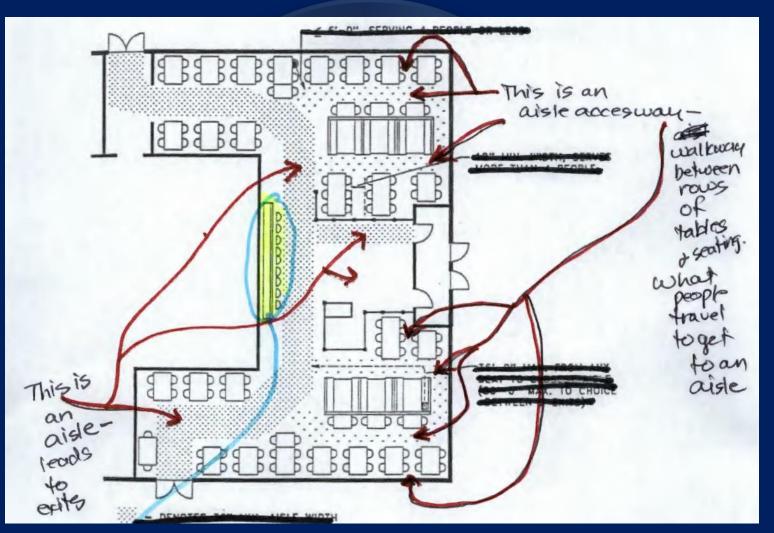
This switch also has to be painted red and labeled "Emergency Fuel Burner Switch."

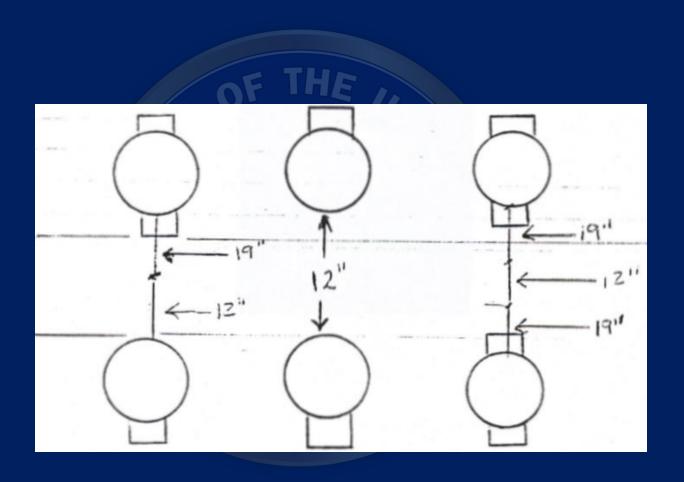
#74. OSFM Certificate of Inspection Posted -

This certificate needs to be posted in a visible location in the boiler room and the certificate must be current.



- #80. Posted Occupant Load -
- #81. Number of Exits -
- #82. Means of Egress Arrangement -
- #83. Illuminated Exit Signs -
- #84. Emergency Lighting -





#85. Maintenance of Fire-Rated Construction and Door Closers —

175/185 requires cafeterias to be enclosed with <u>1-hour</u> fire-rated construction if the cafeteria has an occupancy load greater than 600.

Part 175/185 only: Smoke or heat detectors are only required in assembly areas if the room or area has interior finish with flame spread > 75 and is not protected with sprinklers.

#93. Inside of Classroom Doors Unlocked –

Classroom doors must be easily and readily openable by pupils from the inside of the classroom without the use of a key or special knowledge or effort.

Bolt locks are not permitted.

Unlatching of the door should not require more than one motion.

Think of the door hardware on hotel rooms.



#94. Maintenance of Fire-Rated Construction —

Must comply with required fire-rating of the corridor. (See also #113)

#95. Door Glass-Vision Panel —

If glass is installed in a door located in a fire-rated wall, then the door has to be fire-rated and any glass within the door will have to be fire-rated as well.

#96. Classroom Door Swing -

Doors shall swing in the direction of egress travel:

IFC/BOCA: if serving > 50 persons

175/185: if serving > 20 persons

#97. Artwork in Classrooms-

For school buildings approved for design on or after July 1, 2016 only: Artwork and teaching materials shall be limited on walls of classrooms to not more than 50% of the specific wall area to which they are attached.

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#108. Number of Exits -
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- #109. Dead-End Travel -
- #110. Illuminated Exit Signs -
- #111. Emergency Lighting -
- #112. Fire Resistant Construction -

Part 175 and beyond: Sprinklers = No corridor rating

Part 175 and beyond: If <u>all</u> rooms used for instruction have a direct exit to the outside.

Part 175 only: 1 story building

Remember that any glass in a door that is required to be fire-rated or a wall that is required to be fire-rated must be approved for that assembly: Either tested/listed for the assembly or meets an exception in the applicable code.

Look for the symbol in the corner of the glass that identifies it as fire-rated glass

Wired glass doesn't always cut it!

Tempered glass ≠ fire-rated!

But fire-rated tempered glass is available on the market.

#113. Capacity and Width of Corridors —

Minimum clear width of corridors needs to be maintained, based on applicable code. Chairs, tables, vending machines, trophy cases, drinking fountains, etc. are allowed but shall not restrict this required width.

#114. Storage in Corridors and Lobbies Not Permitted —

Storage in lobbies and corridors is normally not permitted unless the corridors and lobbies are protected with sprinklers or smoke detectors. Metal lockers may be used as long as the minimum required corridor width is not decreased.



#114. Storage in Corridors and Lobbies Not Permitted —

175 permits coats or other clothing to be hung in an open corridor under certain prescribed conditions.

#114. Storage in Corridors and Lobbies Not Permitted -

175 states that the hanging of clothing in corridors should be avoided. Where this is done, the width of the corridor shall be increased 15 inches on each side where cloaks are hung.

#114. Storage in Corridors and Lobbies Not Permitted -

185 permits students' cloaks to be hung in the open on the side walls of corridors as long as the following criteria are met:

(see following slides)

#### Part 185 continued:

- The resulting clear width of such corridors is not less than 85% of the minimum allowable clear width established by 185, and
- The uninterrupted length of cloaks hung along any corridor wall is not more than 25 ft. in an unsprinklered building or 40 ft. in a sprinklered building:

Such length shall be measured horizontally from one end of the cloak hanging hooks or bars to the other end...

Continuity can be interrupted by a fire break consisting of a doorway or blank wall area not less than 36 in. in width or of a partition extending outward perpendicularly from the corridor wall not less than 12 inches and upwards from the floor to an elevation not less than 24 inches above the top of the cloaks.

This fire break partition, if provided, shall be considered in determining compliance with the limitations of the preceding paragraph.

#115. Artwork –

Teaching material and artwork ≤ 20% of corridor wall-

\*\*\*\*\*THIS ONLY APPLIES TO BUILDINGS APPROVED FOR CONSTRUCTION UNDER THE 2006, 2009 AND 2015 EDITIONS OF THE I-CODES\*\*\*\*

#115. Artwork –



# **Elevators and Conveying Systems**

#121. Does Not Obstruct Egress —

Typically, this is a problem found with chair lifts installed in stairways.

# **Elevators and Conveying Systems**

#122. Certificate of Inspection –

Elevators must have a current inspection certificate. Generally displayed in elevator car, but can be kept in the main office or the custodians office.

Certificates also required for other conveying systems such as escalators.

#123. Properly Installed and Maintained Exterior Stairs –

Installation will be approved at completion of work, but the inspector needs to visually inspect to check for signs of:

- Structural failure
- Clear and unobstructed, including snow, etc.



#124. Fire Lanes –

If the ROE makes the decision that a fire lane is needed, then it is required to be maintained, kept clear of obstructions (which includes parked cars that may impinge on required width of fire lane) and marked with appropriate signage.



#125. Fire Department Connections –

Fire department connections shall be unobstructed and easily accessible.

#126. Fire Hydrants — 425 ILCS 20

No object shall be constructed, maintained or installed within 48 inches of a fire hydrant. It shall be unlawful to install, maintain, construct or enlarge any barriers, trees, bushes, walls, or other obstacles which may hide or impede the use of a fire hydrant. Any fire hydrant installed or replaced after the effective date of this *Act* [1990] shall have a discharge that is maintained at least 14 inches, but not more than 26 inches, from the surface from which the hydrant protrudes.

#128. Existing Fire Escapes –

Allowed to remain but cannot constitute more than 50% of the required exit capacity

185 - Only students aged 3<sup>rd</sup> grade and older are permitted on floors using fire escapes

#128. Existing Fire Escapes –

Can be replaced with new fire escapes when the exterior of the building cannot be utilized due to:

- Lot lines
- Sidewalks
- Alleys/Roads

#128. Existing Fire Escapes –

When permitted to be installed, new fire escape stairs cannot incorporate ladders or be accessed through windows.

Access to any fire escape cannot be through an intervening room.

#130. Protection of Openings –

Except in buildings protected throughout with sprinklers, openings within 10 ft of a fire escape stair shall have a ¾-hour fire resistance rating. (This also applies to exterior stairs).

#131. Testing –

The AHJ can require testing or other evidence that an existing fire escape meets the requirements of the School Code.

Remember, the AHJ is the ROE.



This does not apply to the "greenhouse windows" commonly found in science laboratories that are installed as window systems. This applies to separate greenhouses or rooms that are glass-enclosed or plexiglass/polycarbonate panel spaces with a controlled environment for growing plants, vegetables, and fruits out of season.



#132. Maintenance of Fire-Rated Construction and Door Closers —

175/185 requires greenhouses to be separated from the attached school building by 3/4-hour fire-rated construction.

#133. Fire Alarm Systems –

Most greenhouses used at schools are considered a classroom setting and would therefore be required to have a fire alarm system.

- Pull stations
- Occupant notification

#133. Fire Alarm Systems –

ISBE and the OSFM agree that there is nothing in the codes that requires the system found in the greenhouse to be connected to the fire alarm system used in the main school building, if the greenhouse is an independent building. No matter how close to main school building.

#133. Fire Alarm Systems –

**BUT...**ISBE and the OSFM agree that if the school building is connected to a third-party monitoring company or a 911 center, then greenhouse fire alarm initiating devices are required to also send a signal to those monitoring organizations.

#133. Fire Alarm Systems –

If the greenhouse is NOT used at all as a classroom setting (students have no need to enter the greenhouse), then a fire alarm system is not required as long as it is an independent building.

#134. Fire Detectors —

175/185 only and only if area is not sprinklered.

## Gym and Multipurpose Rooms

```
#138. Posted Occupancy Load -
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- #139. Number of Exits -
- #140. Means of Egress Arrangement -
- #141. Illuminated Exit Signs -
- #142. Emergency Lighting -

## Gym and Multipurpose Rooms

#143. Maintenance of Fire-Rated Construction and Door Closers —

175/185 requires that gyms and multipurpose rooms be enclosed with <u>1-hour</u> fire rated construction if the occupancy load is greater than 600.

## Home Economics and Family Services Rooms

These rooms are the cooking, sewing, and child care instructional rooms. These rooms contain domestic stoves, domestic laundry machines and sewing machines.



## Home Economics and Family Services Rooms

If a school has a child care area, for purposes of vocational training for students, this child care center is <u>not</u> required to be licensed by the Illinois Department of Children and Family Services and is governed by the rules of ISBE, unless they have clients < 24 months of age. BUT our worry is not licenses.

## Home Economics and Family Services Rooms

#151. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires 3/4-hour

#152. Fire Detectors — 175/185 only and only if area is not sprinklered

#153. Exhaust Fan -

# Industrial Technology Labs and Metal Working Shops

Unique hazards found in these areas:

- Scrap metal and fines
- Compressed gases
- Machining oils
- Open flame (welding)

# Industrial Technology Labs and Metal Working Shops

- Proper storage of compressed gas
- Ongoing housekeeping
- Appropriate trash cans for oily rags
- Egress maintained

# Industrial Technology Labs and Metal Working Shops

#161. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires <u>1-hour</u>

#162. Fire Detectors - 175/185 only and only if area is not sprinklered

#163. Welding Booth Exhaust -

#164. Eye Glasses -

We are discussing the kitchens used to prepare meals for the students, unless the school has a vocational kitchen where commercial cooking is performed or there exists cooking with grease ladened vapors.

This discussion does not include the typical home economics classroom.

#176. Maintenance of Fire-Rated Construction and Door Closers —

175/185 requires <u>3/4-hour.</u> This is different than what we are used to enforcing in the model codes.

#177. Fire Detectors — 175/185 only and only if area is not sprinklered

#178. Fire Extinguishers –

Schools will be required retroactively to provide at least one fire extinguisher within 30 ft. of the commercial cooking equipment.

#178. Fire Extinguishers –

These fire extinguishers are required to be compatible with the fire suppression agent used in the cooking hood.

Cooking equipment involving vegetable or animal oil shall be protected using a Class K extinguisher.



#179. Cooking Hood Exhaust –

Commercial cooking appliances must be protected with an approved commercial kitchen exhaust hood and duct system.

International Mechanical Code BOCA National Mechanical Code

#180. Regular Inspection and Cleaning of Cooking Hood Exhaust System —

The codes do not identify specific time periods, but base the frequency on what is needed to prevent the accumulation of grease.

Look for a sticker placed on the outside edge of the hood canopy or for paperwork if cleaning company doesn't use stickers.

#181. Filter Installation and Maintenance —

Filters are part of the grease collection system. It becomes pretty obvious when they are not being cleaned on a regular basis.

#181. Filter Installation and Maintenance –

- Listed
- Constructed of steel or listed equivalent
- Rigid construction
- Mesh filters are not permitted unless listed for use in hoods
- Installed at an angle ≥ 45° from the horizontal



#182. Cooking Hood Extinguishing Systems –

All existing extinguishing systems will need to be listed under UL 300, which means they should be a wet chemical system. Currently there are no dry chemical systems that are listed under UL 300.

#182. Cooking Hood Extinguishing Systems –

Systems must be inspected every 6 months and a service tag should be found on the remote pull station or on the extinguishing agent tank.

This work has to be performed by a fire equipment contractor that is licensed with OSFM.

### Library and Media Centers

```
#189. Posted Occupant Loads -
#190. Number of Exits -
#191. Means of Egress Arrangement -
#192. Illuminated Exit Signs -
#193. Emergency Lighting -
#194. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires 1-hour (if O.L. > 600)
```

## Library and Media Centers

Part 175/185 only: Smoke or heat detectors are only required in assembly areas if the room or area has interior finish with flame spread > 75 and is not protected with sprinklers.

### Mechanical Rooms

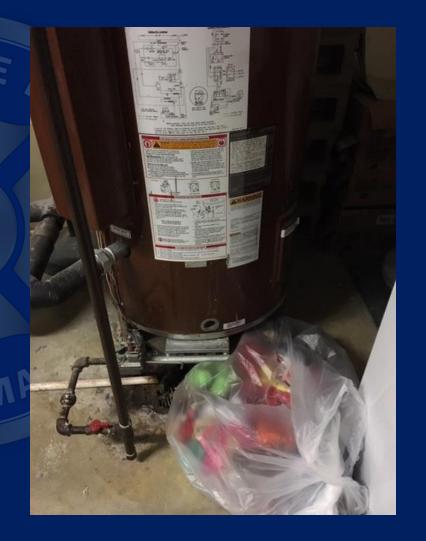
#198. Maintenance of Fire-Rated Construction and Door Closers — See Appendix O, P, or Q for the various types of mechanical rooms and their separation requirements

#199. Fire Detectors — Part 175/185 only

### Mechanical Rooms

#200. Storage of Combustibles-

Clearances to combustible materials shall be maintained so the operation of furnaces and other gas appliances will not create a hazard to persons or property.



### Mechanical Rooms

#200. Storage of Combustibles-

A minimum clearance is required to permit maintenance and inspection of equipment.

### Music Practice Rooms

#202. Sound Proofing Used As Wall Covering —

Refer to interior finish requirements









## Photo Developing Rooms

This applies only to labs that are still using film and chemicals. Does not apply to digital photo processing:

#208. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires 3/4-hour

#209. Fire Detectors - 175/185 only and only if area is not sprinklered

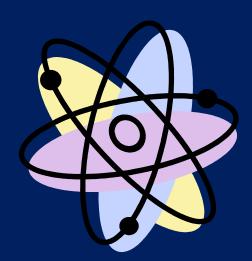
#210. Exhaust Fan –

#211. Chemicals – See Appendix B

#225. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires 3/4-hour

#226. Fire Detectors -

#227. Exhaust Fan -



#228. Fume Hood Exhaust –

A fume hood exhaust needs to be provided when the mixing of chemicals occurs. This must exhaust directly to the outside. There are no ITM requirements for fume hoods.

These booths should not be used for storage, which is a commonly found violation.



#231 Emergency Fuel Burner Switch-

ICC Fuel Gas Code (2009 + 2015) 409.6 Shutoff valve for laboratories. This applies only to schools approved for design on or after January 1, 2010.

### Shower and Locker Rooms

#235. Number of Exits -

#236. Illuminated Exit Signs/Emergency Lighting-

#237. Exhaust Fan/Ventilation – not checked by fire service personnel

#238. Vapor-Proof Lights – not checked by fire service personnel

These requirements pertain to those stages with overhead hanging curtains, drops, scenery or stage effects other than lighting and sound; or a stage where the distance between the top of the proscenium opening and the ceiling above the stage is > 5 ft or the stage height is > 50 ft.

Generally, these stages are only found in high schools.

#243. Illuminated Exit Signs -

#244. Emergency Lighting -

#245. Maintenance of Fire-Rated Construction and Door Closers — 175/185 requires <u>1-hour</u> proscenium separation. Newer schools may be required to have a 2-hour separation.

#246. Proscenium Wall Protection –

The proscenium wall is the wall that separates the stage and backstage areas from the audience. This wall is required to be fire-rated.

The proscenium curtain is part of the proscenium wall protection system.

#246. Proscenium Wall Protection —

A properly designed deluge sprinkler system is permitted in lieu of a proscenium curtain.

See Appendix E for recommended practice for proscenium curtains, except for those installed under the 2009 + 2015 edition of IBC.

#247. Curtains and Scenery –

Must resist the spread of flame. There should be a current label attached to curtains used on stages.

#248. Sprinkler Systems and Ventilators –

Stages which are equipped with fly galleries, gridirons, and rigging for movable theater-type scenery shall be protected with sprinklers.

In most cases, even existing stages!

#248. Sprinkler Systems and Ventilators – Stages and enclosed platforms > 500 ft<sup>2</sup> are required to have a ventilator(s) that is:

- Manually operated from the stage floor, and
- Automatically operated by fusible links or approved heat actuating devices

#249. Standpipes for Stages –

For schools contracted for design on or after July 1 1965 but before March 24, 1995 are required to have a standpipe. For schools contracted for design on or after March 24, 1995, stages > 1,000 ft<sup>2</sup> are required to have a standpipe.



# Stages (Small)

These requirements apply to those smaller stages found in your typical grade school and middle school. Scenery is still used but not hung from the professional rigging systems found in the Large Stages. The stage ceiling is not > 5 ft. above the proscenium opening.

# Stages (Small)

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#256. Illuminated Exit Signs -
#257. Emergency Lighting -
#258. Curtains and Scenery -
#259. Fire Detectors —
175/185 only and only if area is not sprinklered
```

#265. Maintenance of Fire-Rated Construction and Door Closers —

#### IFC 2003/2006/2009/2015

1-hour fire rated construction with doors that are N/C construction or  $1\frac{3}{4}$ " SC with closer and latch. Exception is only if area under stage is used for noncombustible storage. If this is a legitimate stage this area is required to have sprinklers and the minimum enclosure requirements are not required

#### **BOCA 1996**

No sprinklers required if space is < 4 ft. in height Used exclusively for storage of tables and chairs Enclosed with 5/8" Type X gypsum

With sprinklers, no minimum enclosure requirements

#### **BOCA 1993**

No sprinklers required is enclosure and supporting structure is 1-hour fire-rated, which means 3/4-hour door with closer and latch.

With sprinklers, no minimum enclosure required

#### Parts 175/185

With sprinklers enclosing construction must be ½-hour fire rated or N/C construction

Without sprinklers enclosing construction must be ½-hour fire rated construction

#### Parts 175/185

In all cases doors shall be of hollow metal or solid core wood construction and shall be maintained locked at ail times when such rooms are not in actual use or shall be provided with automatic self-closing devices.

#266. Noncombustible Storage Only -

ICC schools only. No fire-rated enclosure required if area under the stage is only used for noncombustible storage only.

This means only metal chairs and tables. No cloth, no wood, no plastic!

#267. Fire Detectors –

175/185 requires smoke or heat detectors in storage areas located below stages, if they are not protected with sprinklers.

#268. Sprinklers – (see Glossary)

#272. Properly Maintained Stairs –

185 requires non-slip treads on all stairs located within a means of egress.

#273. Illuminated Exit Signs -

#274. Emergency Lighting -

#275. Interior Exit Stair Enclosure -

#276. No Storage Under Stairs –

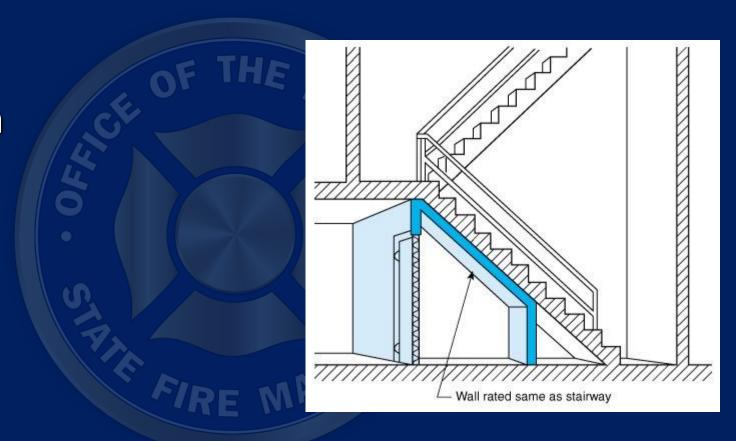
Stairwells are not storage rooms! There should be no storage of any kind within a stairwell.



It is permissible to create an enclosed storage room under stairs under the following conditions:

- Separation from stair structure and stairwell itself by 1-hour fire-rated construction
- Access to storage room is not from within the stairwell.
- Fire detection is provided if room is not protected with sprinklers.

#276. Exception



#277. Fire Detectors -

185 requires that fire detectors (smoke or heat) be provided at the top of stairwells that are not protected with sprinklers.

## Storage

#283. Maintenance of Fire-Rated Construction and Door Closers – See Appendix O, P, or Q.

#284. Fire Detectors – 175/185 only and only if area is not sprinklered.

```
When serving as an assembly use:
```

- #289. Posted Occupant Loads -
- #290. Number of Exits -
- #291. Means of Egress Arrangement -
- #292. Illuminated Exit Signs -
- #293. Emergency Lighting –

#294. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires 1-hour if > 600 occupants

#295. Vapor-Proof Lights - Fire service will not be required to look at these fixtures

#296. Exhaust Fan — Fire service will not be required to check for this.

#297. IDPH Safety Equipment –

This item falls under the jurisdiction of the Illinois Department of Public Health. Fire department, fire protection district and OSFM inspectors will not be required to review or enforce this. (Title 77 Ill. Adm. Code 820.310)

#298. Fire Extinguishers –

If a fire extinguisher is provided in the pool area, only water fire extinguisher are permitted in areas containing oxidizers such as pool chemicals.



## Teacher's Workrooms and Lounges

If it is starting to look like a kitchen with cooking (beyond microwaves and coffee pots) then it should be protected as a kitchen.

#### Teacher's Workrooms and Lounges

#301. Maintenance of Fire-Rated Construction and Door Closers – 175/185 requires <u>3/4-hour</u>

#302. Fire Detectors - 175/185 only and only if area is not sprinklered and only in those lounges where there are cooking or heating appliances

#303. Exhaust Fan –

#304. Ceiling Height –

Time-out rooms ceiling height shall be the same as surrounding rooms.

Room shall be large enough to accommodate student and another person required to accompany student.

#305. Safe Construction —

Constructed using materials that will not harm and so that the student cannot climb the wall.

Viewing panels – Fire-rated construction?

Padding – Interior finish requirements

#306. Locking –

If a locking mechanism is used on the enclosure, the mechanism shall be constructed so that it will engage only when a key, handle, knob, or other similar device is being held in position by a person. Upon release of the locking mechanism by the supervising adult, the door must be able to be opened readily.

#306. Locking –

If the mechanism is an electrically or electronically controlled one that is automatically released when the building's fire alarm system is triggered, that is an acceptable alternative.

#306. Locking –

The door shall not be fitted with a locking mechanism (except as described above) or be physically blocked by furniture or any other inanimate object at any time during the time out.

#307. Monitoring –

Any enclosure for isolated time out shall be designed to permit continuous visual monitoring of and communication with the student.

#### **Toilet Rooms**

#309. Exhaust Fan -

Fire service will not be required to check for this.

#315. Maintenance of Fire-Rated Construction and Door Closers - 175/185 requires 1-hour.



#316. Fire Detectors – 175/185 only and only if area is not sprinklered

#317. Fire Extinguishers –

A fire extinguisher suitable for Class A fires is required to be installed within 50 ft. of any machine producing shavings or sawdust. Shall be serviced by a contractor licensed by OSFM and display a current inspection tag.

#318. Sawdust Collector and Exhaust —
This system is required and should be installed in accordance with the applicable code (International Fire Code or BOCA National Fire Prevention Code).

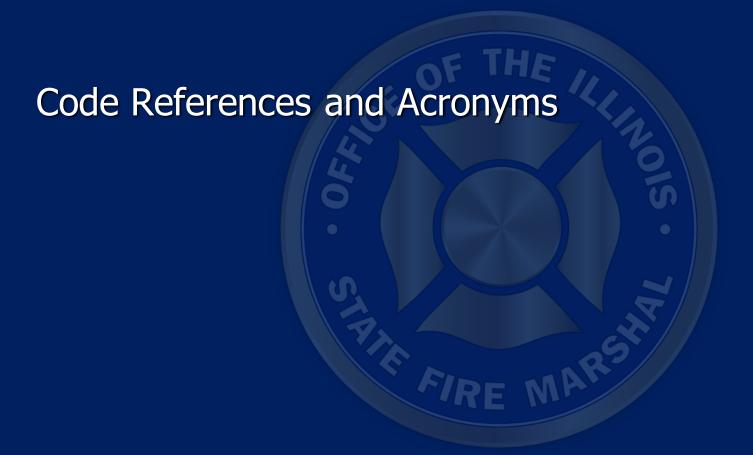
Collection device should be emptied regularly or upon need.

#319. Eye Glasses



#320. Housekeeping – Provisions shall be made for the systematic, thorough cleaning of the woodworking area at sufficient intervals to prevent the accumulation of combustible dust and spilled combustible flammable liquids (if used).

## Appendix A



### Appendix B

Storage/Handling of Flammable and Combustible Liquids and Other Chemicals





### Appendix C

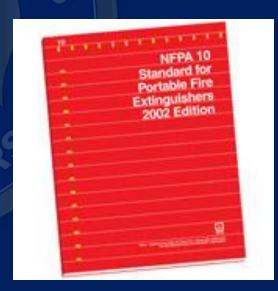
Fire Alarm Inspection, Testing, and Maintenance



## Appendix D

Fire Extinguisher Matrix-NFPA 10: 2007 per OSFM's Part 251 rules.





#### Appendix E

Periodic Inspection and Testing of Proscenium Curtains (guideline only, except for those curtains installed under the 2009 + 2015 IBC)

NFPA 80 - 2007 + 2013 editions

## Appendix F

Periodic Testing of Emergency Lighting Equipment



### Appendix G

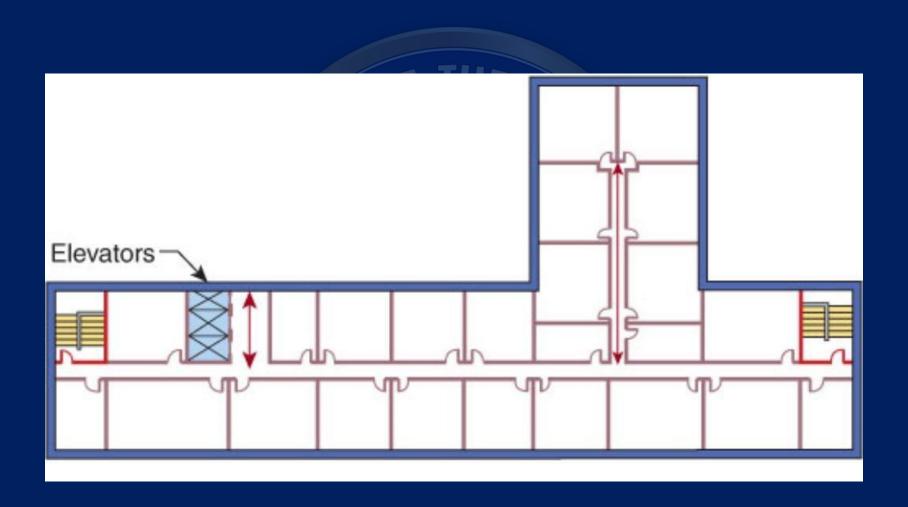
Dead-End Travel Matrix

From BOCA Fire (1993 + 1996) and IFC (2003 + 2006 + 2009 + 2015)

# Appendix G



# Appendix G



## Appendix H

Wall-Mounted Alcohol-Based Hand-Rub Dispensers

# Appendix I



# Appendix J



### Appendix K

Health/Life Safety Annual Inspection Checklists

## Appendix L



## Appendix M



## Appendix N



## Appendix O



## Appendix P



### Appendix Q

Part 180 Fire Rated Separations

Includes BOCA 1993 +1996

Includes ICC 2003 + 2006 + 2009 + 2015

## The End

